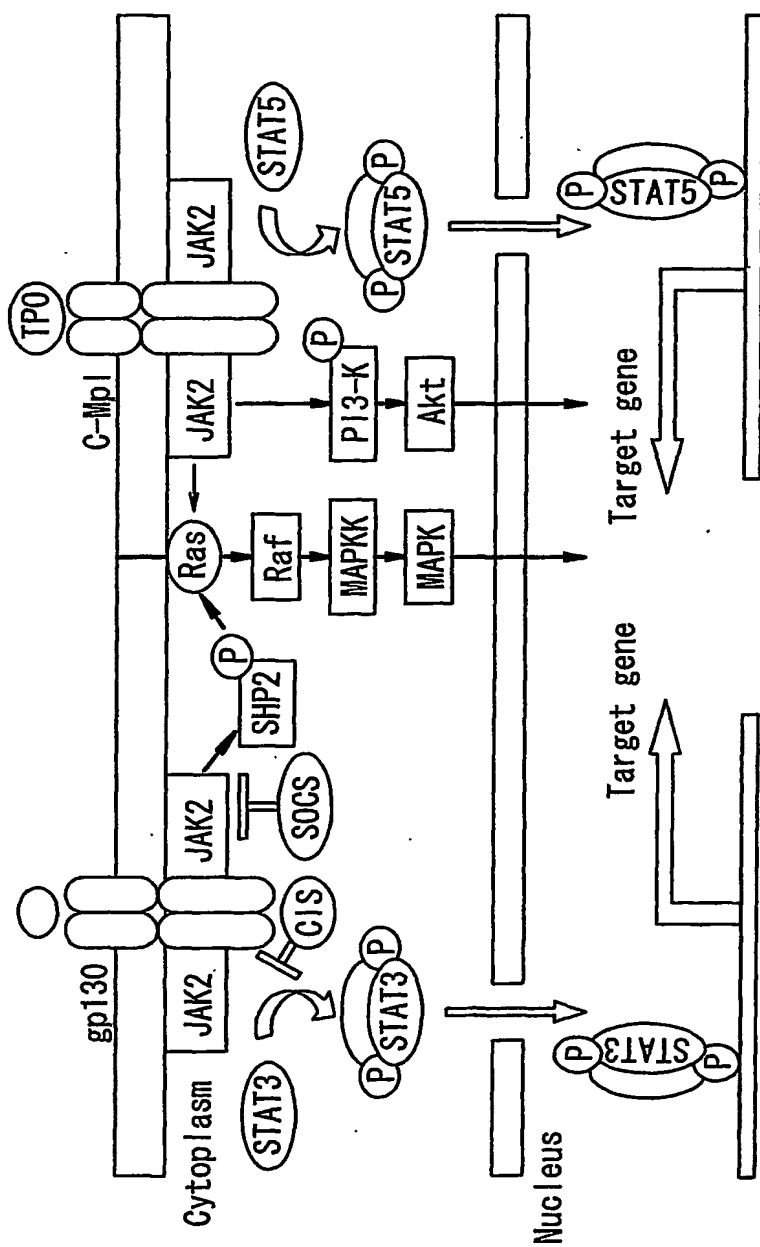


FIG. 1 Self-replication signal in hematopoietic stem cell



Active STAT

FIG.2 GCsam STAT ires EGFP

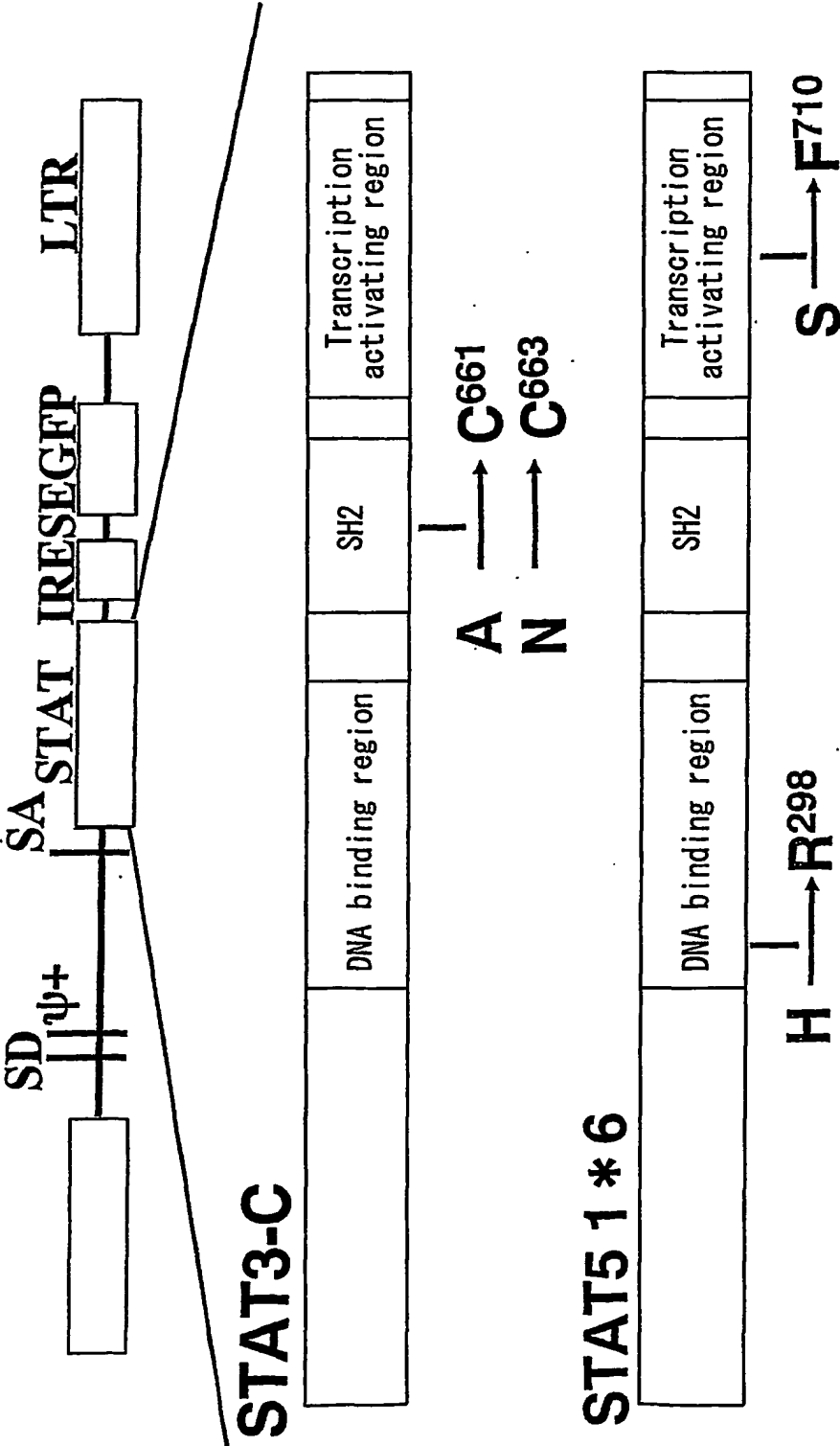
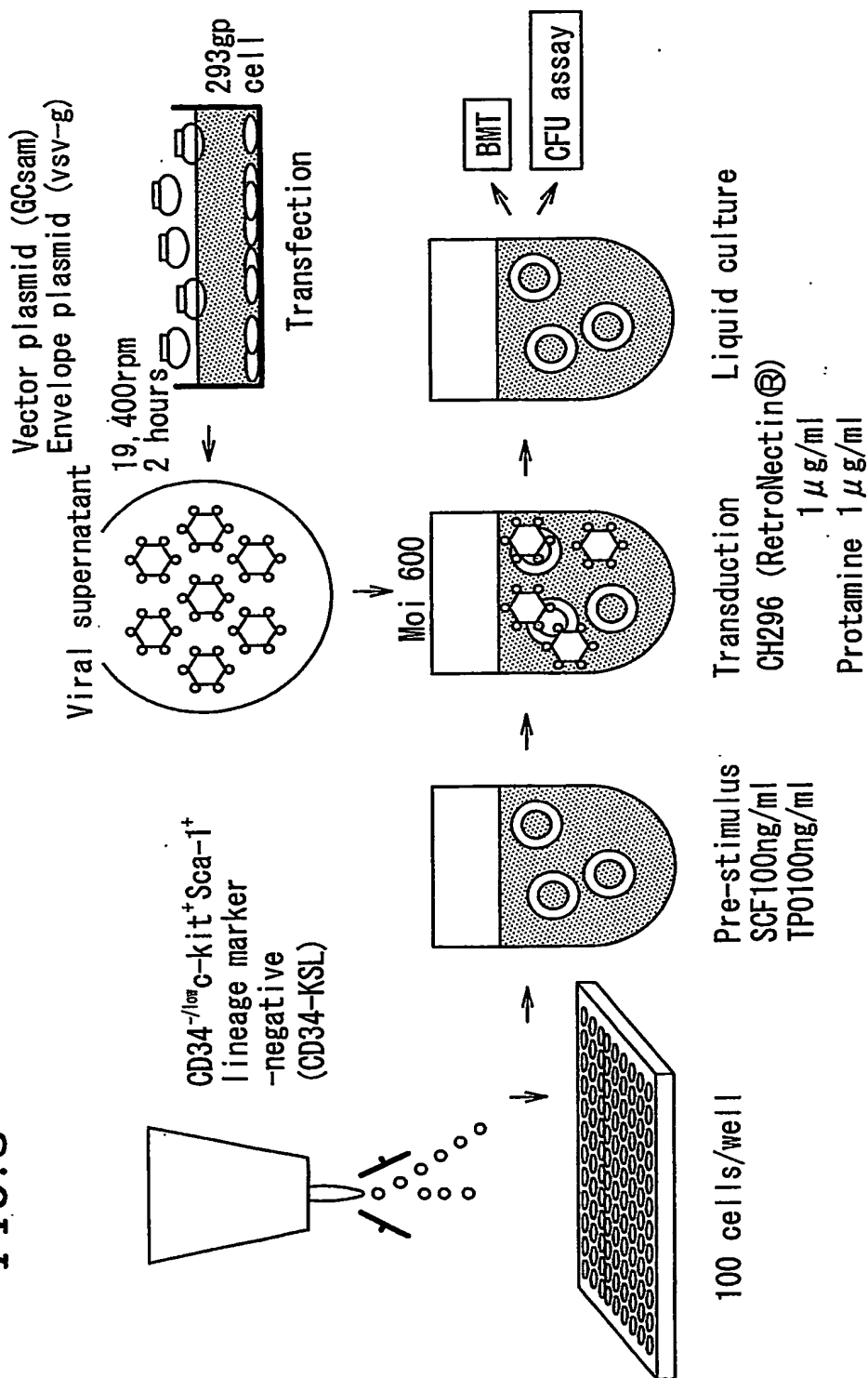


FIG.3

Transduction of HSC using retrovirus



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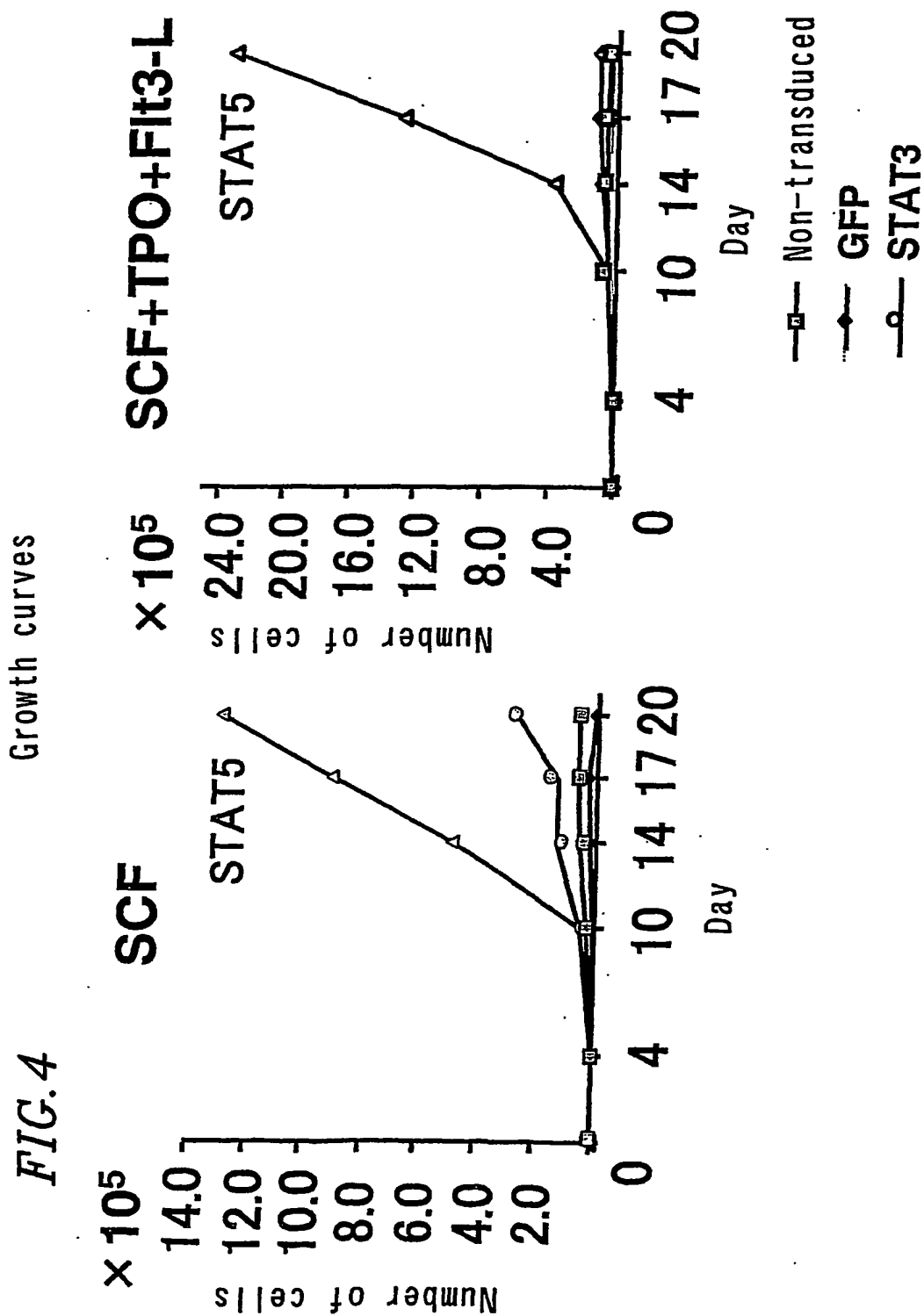
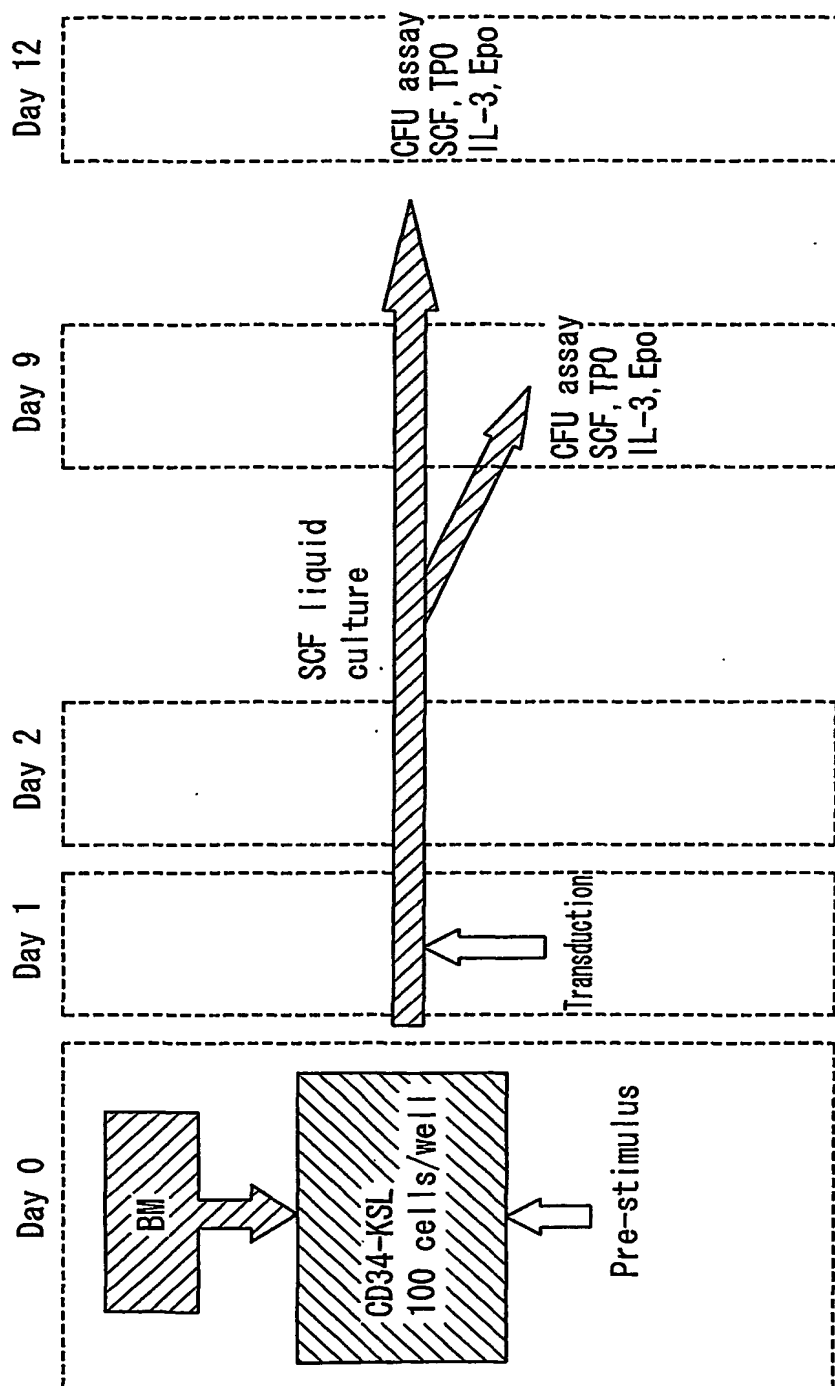


FIG. 5



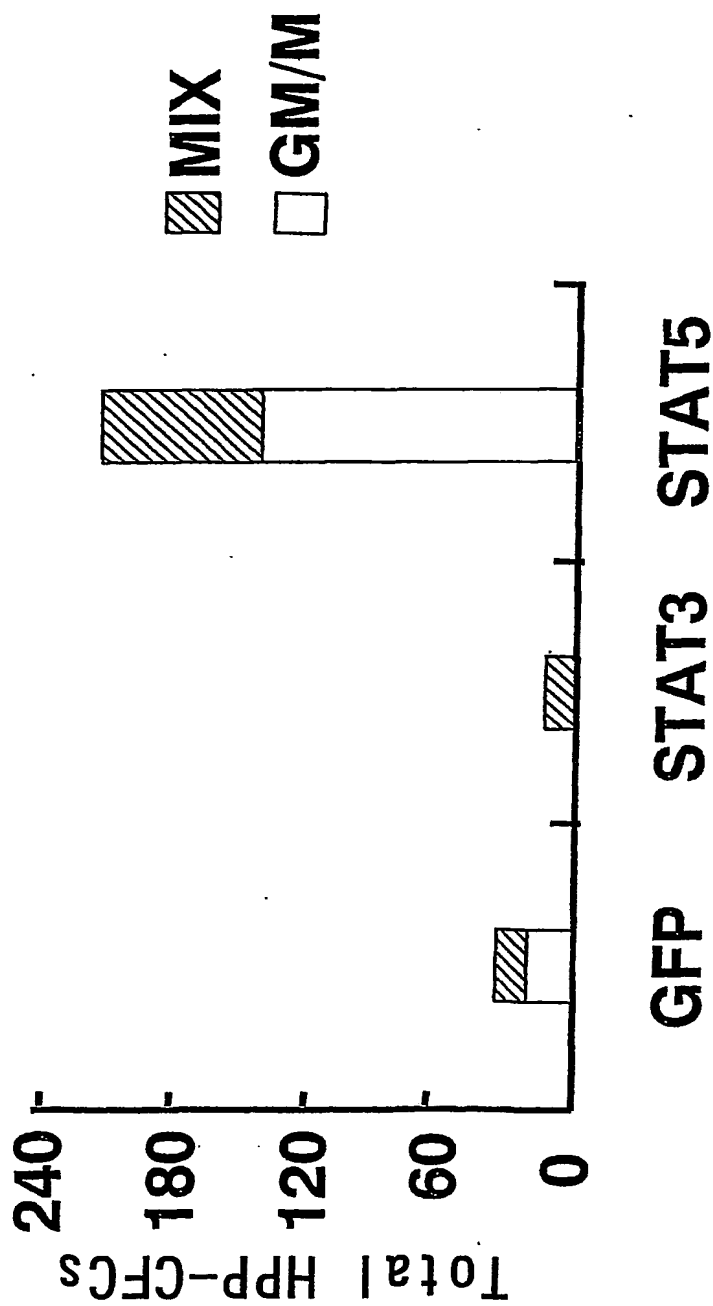
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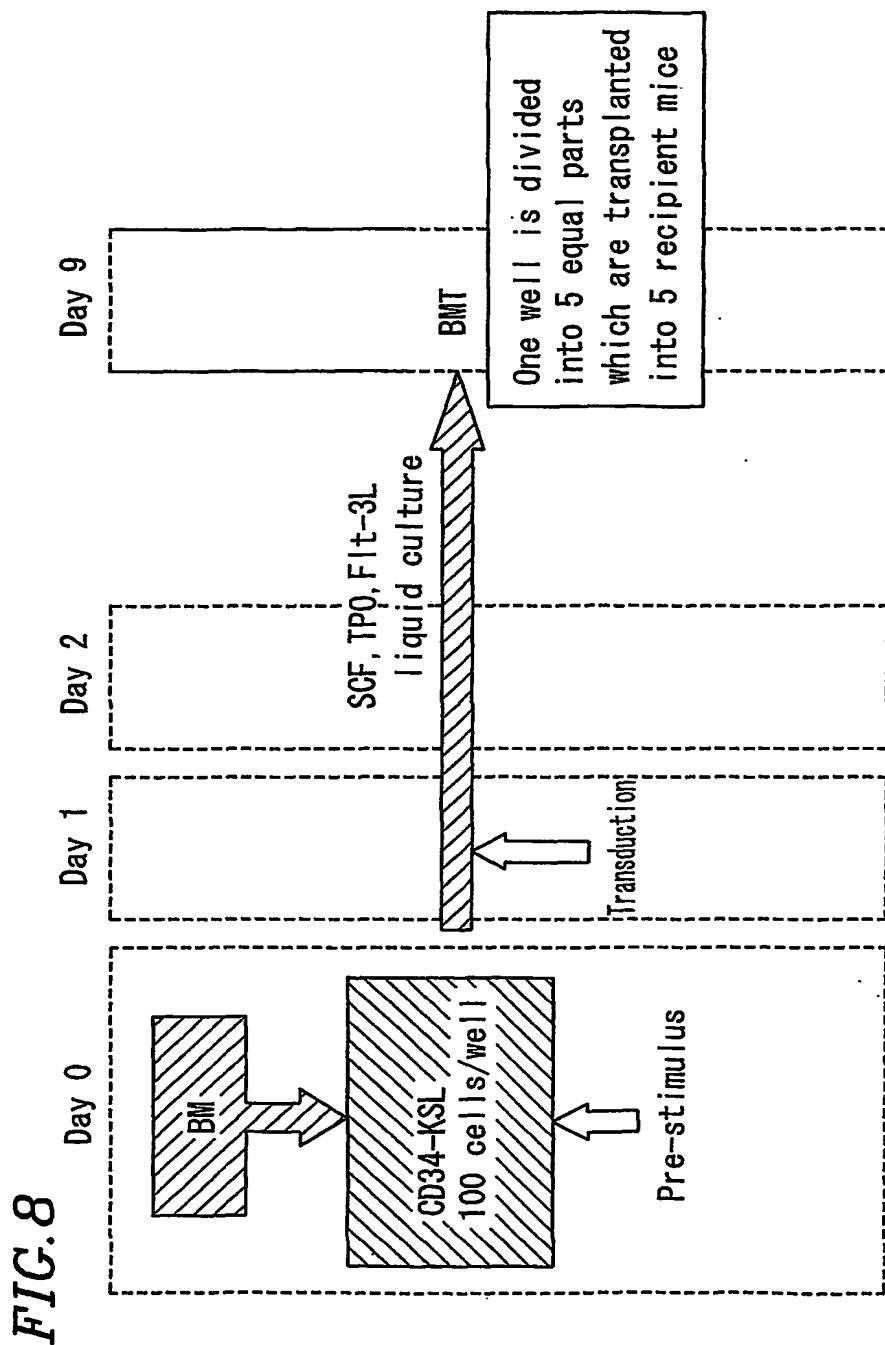
FIG. 6

Colony assay									
CFU value									

HPP-CFCs

FIG. 7





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FIG. 9

Reconstruction of lymphocyte and myelocyte by HSC transduced with active STAT5

Agent	Virus	No. Positive HSC	Positive mouse	Total leukocyte	Bone marrow cell	Chimerism %	
						B lymphocyte	T lymphocyte
SCF	GFP	20	0/5	-	-	-	-
	STAT5	20	0/5	-	-	-	-
SCF+TPO	GFP	20	0/4	-	-	-	-
+Flt-3L	STAT5	20	3/3	12.4±9.2 (n=3)	8.9±8.7 (n=3)	0.3±0.2 (n=3)	2.7±3.5 (n=3)